

**(19) World Intellectual Property Organization
International Bureau**



**(43) International Publication Date
24 June 2004 (24.06.2004)**

PCT

(10) International Publication Number
WO 2004/053172 A3

(51) **International Patent Classification⁷:** H01J 49/04, B01L 3/00

(21) **International Application Number:** PCT/EP2003/014006

(22) **International Filing Date:** 10 December 2003 (10.12.2003)

(25) **Filing Language:** English

(26) **Publication Language:** English

(30) **Priority Data:**
0228830.6 11 December 2002 (11.12.2002) GB

(71) **Applicant (for all designated States except US):** AMERSHAM BIOSCIENCES AB [SE/SE]; Bjorkgatan 30, S-751 84 Uppsala (SE).

(72) **Inventors; and**

(75) **Inventors/Applicants (for US only):** STJERNSTROM, Marten [SE/SE]; Edsviksvagen 42, S-182 34 Danderyd (SE). VANGBO, Mattias [SE/SE]; Dumlebo, S-740 22 Balinge (SE).

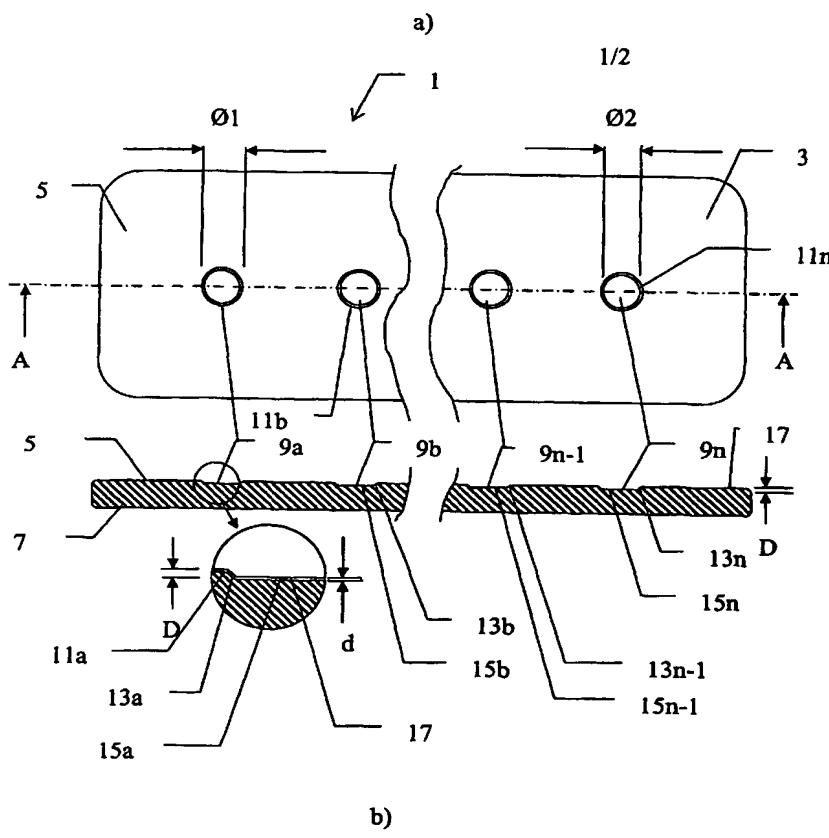
(74) **Agents:** FRANKS, Barry et al.; Amersham plc, Amersham Place, Little Chalfont, Buckinghamshire HP7 9NA (GB).

(81) **Designated States (national):** AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) **Designated States (regional):** ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SI, SZ, TZ, UG, ZM, ZW).

[Continued on next page]

(54) Title: METHOD AND DEVICE FOR MASS SPECTROSCOPY



(57) Abstract: The present invention relates to mass spectrometer target slides (1) which are provided with pits (9a-9n) on the sample receiving surface (5). The sample receiving surface (5) and the rims (11a-11n) of the pit (9a-9n) are coated with a hydrophobic layer 17. The at least one pit (9a-9n) has a width or diameter Ø1 which is less than the width of a drop applied to the pit (9a-9n).



Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:
2 September 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/14006

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H01J49/04 B01L3/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 H01J B01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 98 41323 A (MOXTEK INC) 24 September 1998 (1998-09-24) abstract	1,5
A	WO 00 67293 A (BEECHER JODY ;SCHEUFELE FRANK (US); VOIVODOV KAMEN (US); WEINBERGE) 9 November 2000 (2000-11-09) abstract	1,5

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the International filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the International filing date but later than the priority date claimed

- "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the International search

18 May 2004

Date of mailing of the International search report

08.07.04

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

MAGNUS WESTÖÖ/MN

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/14006

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
WO 9841323	A 24-09-1998	US	5958345 A	28-09-1999
		AU	6455698 A	12-10-1998
		WO	9841323 A1	24-09-1998
-----	-----	-----	-----	-----
WO 0067293	A 09-11-2000	US	6555813 B1	29-04-2003
		AU	5124100 A	17-11-2000
		CA	2371738 A1	09-11-2000
		CN	1359532 T	17-07-2002
		EP	1181705 A2	27-02-2002
		JP	2002543440 T	17-12-2002
		WO	0067293 A1	09-11-2000
		US	2003106997 A1	12-06-2003
-----	-----	-----	-----	-----